**Inheritance of Traits**

Everyone has traits: characteristics and qualities that make us who we are. We have physical traits, like brown hair, blue eyes, long legs, freckles and funny‐looking toes. We also have personality, or character traits. Those include things like being great at telling jokes, compassion, intelligence, warmth, creativity.

Where do traits come from? It’s easy to spot certain physical traits that were passed down genetically from parents to offspring. Traits like red hair and knobby knees are inherited. What’s more complex, and, many would argue, more interesting, is to find the source of traits that could have formed from individual reactions to a certain environment. Many traits exist in a gray area between these two extremes—inheritance and development.

One example is body type. This might seem like an easy one. People are genetically predisposed to their body type. But once diet becomes a factor, environment begins to play a major role in how the body develops. So body type is one example of a trait that is a combination of inheritance and interaction with an individual’s environment.

So many of our most defining traits have been learned, rather than inherited. For instance, if you’re really great at video games, it’s not because one or both of your parents passed down skills in some video game mastery gene. It’s because you practiced, played a lot of video games, and developed those skills yourself. If you have kids who turn out to be great at video games, it will be because they put in the hours, learned the skills, and memorized the moves necessary to master the video game.

Of course, there are ways our brains can form that are more advantageous to advanced video game playing. Say you were born with an extra‐large, extra‐powerful section of your brain that commands hand‐eye coordination. That’s inherited. What you do with it, how you choose to develop that advantage, is up to you.

You can pierce your nose, get a tattoo, dye your hair, shave your head, get your kidneys removed, put on a silly hat—it doesn’t matter how much you alter your body during your lifetime. None of those things will translate into genetic material to be passed down to the next generation. Of course, if your children grow up in an environment with role models who are pierced, funny‐hatted and covered in tattoos, that is very likely to affect how likely they are to get piercings, tattoos, and funny hats!

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Text-dependent questions:

1. According to the first paragraph, what is the main purpose of the reading?
2. Physical traits vary from person to person.
3. Personality traits can be affected easily by the experiences someone may be exposed to.
4. People have characteristics that can be either physical traits or personality traits
5. Hair color and intelligence are two types of traits

2. What is the meaning of traits as it is used in the reading?

A. Characteristics and qualities that make us who we are.

B. Physical characteristics only

C. Characteristics that all people in a population will possess

D. The inherited features of a person

3. According to the text how could your body type be affected by both inheritance and environment?

A. People can inherit their diet traits but can expose their body to different environmental changes that alter height and weight

B. Someone is predisposed to their height and weight based on parents traits but can inherit traits like diet and hair color

C. Parents can pass along traits for body type such as height but this can be altered by the way a child’s diet might be altered.

4. What proof does the article use to say that video game skill isn’t an inherited trait?

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5. Is changing your hair color mean that your child would inherit that new hair color? Use evidence from the text to support your argument.

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